410 Rec'd PCT/PTO 2 8 SEP 2001

Version with Markings to

Dw Changes Made

09/937730

chromatography specimen as defined in Claim 1, the surface active agent comprises a surface active agent having a HLB value which is 20 or lower.

Therefore, in addition to the effect according to Claim 1, it can be prevented that the permeation speed of a liquid reagent in the reactive layer is too high to obtain a sufficient reaction, and further by selecting the HLB value to control the reaction speed appropriately, a chromatography measurement with a higher sensitivity and a higher performance of the can be realized.

According to Claim 3 of the present invention, in the chromatography specimen as defined in Claim 1 or 2, the surface active agent comprises a nonionic surface active agent.

Therefore, in addition to the effect according to Claim 1, a nonspecific adsorption of a marker reagent onto the reactive layer is avoided and it can be prevented that the marker reagent remains on the reactive layer as a background, thereby realizing a measurement by a chromatography specimen with a higher sensitivity and a higher performance.

According to Claim 4 of the present invention, in the chromatography specimen as defined in any of Claims 1 to 3, the surface active agent comprises a cholic acid surface active agent.

Therefore, in addition to the effect according to Claim 1, influence upon protein can be reduced and the denaturation or

property of the specific protein can be almost held, whereby the performance of the specimen 20 can be held for a long time.

While in the second embodiment the description has been given taking the specific protein as an example of the reactive component adopted in the chromatographic analysis, a reactive component such as an enzyme, which causes some changes before and after the reaction may be adopted as the reactive component as in the first embodiment.

A chromatographic analysis using an enzyme as a reactive component will be described with reference to figures 5 and 6.

Figures 5 and 6 are diagrams illustrating a structure of a flow through-type chromatography specimen that adopts an enzyme.

A chromatography specimen 30 has a sample application part 11, a reactive reagent impregnation region 17, a reactive layer 14, a surface active processing part 8, an enzyme immobilization part 7, and a water-absorbing part 15. The reactive reagent impregnation region 17 holds a reactive reagent on a nonwoven fabric or the like so that it can be dissolved by a liquid reagent applied to the sample application part 11. The enzyme immobilization region 7 is obtained by immobilization and holding an enzyme that processes a binding reaction with an analysis target on the area of the reactive layer 14 according to the reactive layer 14, the surface active

processing part 8 and the water-absorbing part 8 in the chromatography specimen 30, except for the enzyme immobilization part 7 and the reactive reagent impregnation region 17, are the same as those of the aforementioned flow through-type chromatography specimen 20, and thus their description will be omitted.

A chromatographic analysis method by the flow throughtype chromatography specimen 30 that adopts an enzyme is the same as that by the aforementioned flow through-type chromatography specimen 20. However, when the liquid sample includes an analysis target, some color reaction is seen in the area of the enzyme immobilization part 7 by the actions of the reactive reagent with which the reactive reagent impregnation region 17 is impregnated and the enzyme immobilized on the enzyme immobilization part 7.

Like for the flow through-type chromatography specimen 20, also for the chromatography specimen 30 that adopts the enzyme, the coating processing is performed to the reactive layer 14 using the surface active agent dissolved liquid in which the surface active agent having such a property that it can be solidified when dried is dissolved and then the drying processing is performed thereto, thereby achieving the same effects as those achieved in the flow through-type chromatography specimen 20.

(Examples)